INSTITUTE FOR HIGHER EDUCATION
LEADERSHIP & POLICY

SENSE OF DIRECTION

The Importance of Helping Community College Students Select and Enter a Program of Study

Colleen Moore
Nancy Shulock

August 2011

California State University, Sacramento

CALIFORNIA STATE UNIVERSITY
SACRAMENTO
Institute for Higher Education Leadership & Policy

6000 J Street, Tahoe Hall 3063 | Sacramento, CA 95819-6081
T (916) 278-3888 | F (916) 278-3907 | *www.csus.edu/ihelp*

Executive Summary

The California Community Colleges (CCC) are committed to increasing the rate at which entering students persist to completion of a certificate or degree or transfer to a university. Recent research suggests that efforts to increase student success in community colleges need to focus on helping new students choose and enter a program of study. Too many students accumulate credits in disparate areas that don't add up to a coherent academic program. Entering a program of study also helps students connect to the college in ways that promote completion. This report examines the progress of an entering cohort of CCC students into and through programs of study to completion of a certificate, associate degree, or transfer to a university. The results point to three main conclusions:

1. Entering a program of study (defined as completing 9 college-level credits in one programmatic area) is a critical milestone on the path to completing a college certificate or degree that only half of all entering CCC students reach.
    - 60% of incoming CCC students attempted to enter a program (by enrolling in the requisite credits) and 49% succeeded in entering a program (by completing the credits)
    - Black and Latino students were less successful than white and Asian students at entering a program, while older students were less likely than younger students to try
    - A substantial number of students likely intended to pursue a college credential but dropped out before making enough progress to enter a program
    - Patterns of program entry and completion varied within and across CTE and liberal arts programs
    - The number of students in just one entering cohort who attempted to enter a program but failed to do so exceeded 50,000, suggesting that there is a significant number of students, from multiple entering cohorts, enrolled in the CCC at any one time who are interested in but having difficulty reaching this important milestone
2. The earlier students enter a program, the more likely they are to complete a certificate, degree or transfer.
    - Students who entered a program in the first year were twice as likely to complete a certificate, degree or transfer as students who entered a program after the first year; first-year program entrants were 50% more likely to complete than those who entered a program in the second year, and the rates of completion fell sharply for students entering a program later than the second year
3. Analyzing students' course-taking patterns provides reliable information for determining their intended programs, but better data are needed for effective student guidance and program review.
    - Most of the credentials earned were in the program a student "entered" based on the courses taken
    - Having accurate data on students' declared majors would allow colleges to better serve students and strengthen academic programs

Recommendations

The CCC's efforts to increase completion will be more successful if the access mission of the colleges is re-conceived as providing access to *well-structured programs* rather than to a collection of courses that may not add up to a coherent program of study. Specific steps the colleges could take to increase the numbers of students who successfully enter programs of study in their first year include:

- Help incoming students learn about and choose programs of study through orientation or a required first-term course that covers program options as well as more general college success skills
- Ensure that certificate and degree programs are well structured and provide roadmaps of required or strongly recommended course sequences for each program of study so that students know what courses they should take in their first year of pursuing a program
- Develop class schedules to ensure availability of courses based on students' declared programs
- Ensure that certificate and degree programs are well structured for part-time students, given that they make up a substantial majority of entering students (even as efforts are made to increase the proportion of students who attend full-time)

Executive Summary

- Provide better professional development opportunities for academic advising staff, to ensure they can provide guidance for students on the full range of program options at the colleges
- Accelerate reforms to basic skills instruction with special attention to contextualized instruction that integrates developmental math and English skills into content courses
- Require students to declare a major program of study after a certain amount of time or accumulation of credits, and assign students faculty advisors in their declared major programs
- Improve coordination between high school and community college programs to ensure that all articulated courses offered in the high schools are part of structured certificate or degree programs and to provide high school students more opportunities to learn about college program offerings
- Keep up-to-date records of each student's major program of study so that students can be appropriately advised as to the courses they need.

Helping students choose, enter (especially within their first year of enrollment) and complete well-defined and structured programs will go far toward increasing the number of students earning college credentials of value and providing California with a well-educated workforce and citizenry.

Entering a Program of Study: An Important Milestone for Community College Students

In California and across the country, community colleges are working to increase the number of students who complete a certificate or an associate degree, or transfer to a university in pursuit of a bachelor's degree. An emerging strategy for using data to improve student outcomes is to measure the patterns by which students reach and move through intermediate milestones on the pathway to completion, to better understand where student progress stalls.[1] Recent research points to the importance of the milestone students achieve when they enter a program of study.[2]

In order to complete a certificate or degree or to transfer as a junior to a university, a community college student must complete a set of college-level courses in a given program area, that is, they must complete a program of study. The above-mentioned research finds that students who enter a program of study quickly are more likely to earn a college credential. Entering a program of study may increase retention and completion by providing students with structure and a specific roadmap to follow,[3] and by connecting them to faculty and students with similar interests and giving them a community and a distinct program sub-culture that supports their goals.[4]

This study examines student patterns of entry, or non-entry, into a program of study (see Data and Methods box for definitions). We wanted to know:

- What share of incoming CCC students reach the milestone of entering a program of study? Does it vary across student populations?
- Does the timing of program entry make a difference in the likelihood that students will complete a certificate, degree or transfer?
- What is the distribution of CCC students across different programs or fields? Do student characteristics and student outcomes vary by program?
- What distinguishes students who successfully enter a program from those who do not? Did students who did not enter a program want to do so, or did they have other goals?

Data limitations pose two sets of challenges for examining student success in entering programs of study. First, some students enter a community college with no intention of earning a credential, which means they can meet their goals without ever entering a program a study. Yet it is difficult to know which CCC students are intending to complete a program of study and which are not. Students are asked to state their goal on the initial application form (e.g., earn an associate degree, improve job skills, personal interest, etc.), but the initial goal statement can be an unreliable indicator as many entering students are uninformed of their options and they can change their minds over time.[5] Second, colleges do not maintain comprehensive, up-to-date data about which program (or "major") students hope to complete.

To compensate for the absence of data that directly reports student intentions and declared majors, the analyses in this report use students' course-taking patterns to identify entry into a program of study as recently modeled by researchers at the Community College Research Center.[6] A student is considered to have entered a program of study after completing nine college-level semester credits (usually equivalent to three courses) in a program area (see Data and Methods box). Students who reach this point are referred to as "concentrators." We examine the progress of an entering cohort of CCC students into and through programs of study to completion of a certificate, associate degree, or transfer to a university.

Data and Methods:

Data: We obtained student unit record data from the CCC Chancellor's Office for the entering cohort of first-time CCC students who enrolled in credit courses in the 2004-05 academic year. Non-credit students and high school students concurrently enrolled in the CCC were excluded. We tracked the 434,158 students over a six-year period through 2009-10.

Methods: We used students' course patterns to identify those who entered into a program of study, using a taxonomy of 21 programs - 3 liberal arts and sciences programs and 18 career technical education (CTE) programs (adapted from a taxonomy originally developed by the National Center for Education Statistics). An online appendix at *www.csus.edu/ihelp* shows our classification of the CCC's Taxonomy of Program (TOP) codes into each program.

Definitions:

Attempting a Program: Enrolling in at least 9 college-level credits within a single program, or across the 3 liberal arts and sciences programs

Entering a Program: Completing at least 9 college-level credits within a single program, or across the 3 liberal arts and sciences programs

Concentrator: A student who entered a program at some point over the six years

Primary Program: The program in which a student completed the highest number of credits (some students "entered" more than one program)

Half of CCC Students Reach the Program Entry Milestone

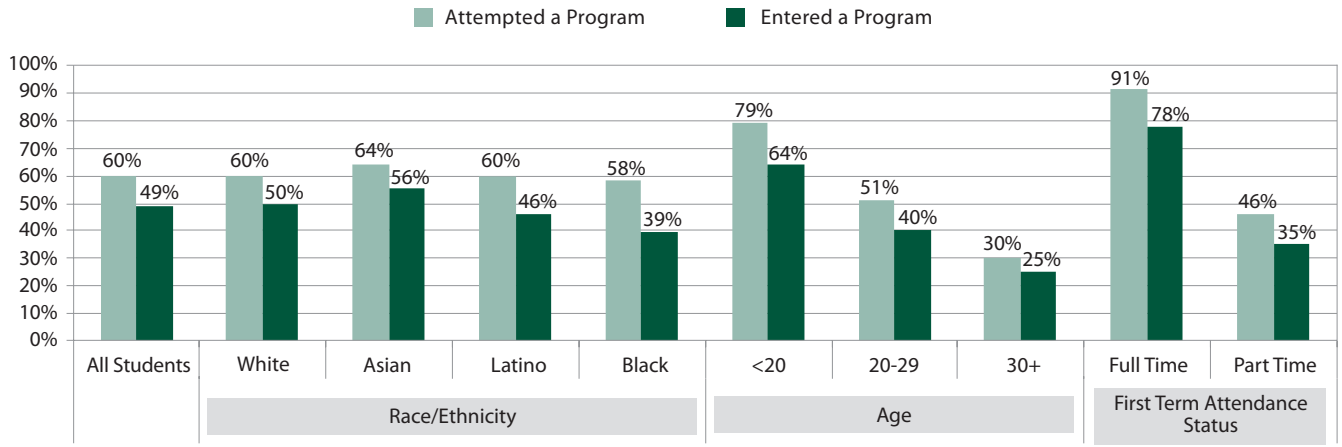
As shown in Figure 1, 60% of incoming CCC students *attempted* to enter a program within six years (by attempting at least 9 college-level credits in one program area). Just under half (49%) of incoming students *successfully entered* a program of study by completing nine or more credits in one program area.[7] Program entry varied across groups of students:

- **Race/ethnicity differences.** Black and Latino students attempted to enter a program at about the same rate as white students, but they were less successful at doing so. Fifty percent of white and 56% of Asian[8] students successfully entered a program, compared to 46% of Latino students and 39% of black students.
- **Age differences.** Older students were less likely than younger students to enter a program, but that reflected a lesser likelihood of attempting a program rather than less success, as about 80% of those who attempted a program entered one in each age group. The lesser likelihood of attempting a program among older students is not surprising, as they are more likely than younger students to enroll in the CCC to take a few courses for interest or job advancement rather than to complete a program.
- **Full-time/part-time differences.** Students who enrolled full time (defined as 12 or more credits) in their first term were twice as likely to attempt and enter a program as students who enrolled part time. As with older students, this may partly reflect different goals for enrolling. However, part-time students were less likely than full-time students to successfully enter a program once having attempted to do so (76% as compared to 86%), an important finding given that nearly 70% of the entering cohort enrolled part-time in the first term.

The number of students in just this one entering cohort who attempted to enter a program but failed to do so exceeded 50,000, suggesting that there is a significant number of students, from multiple entering cohorts, enrolled in the CCC at any one time who are interested in but having difficulty reaching this important milestone. The failure to enter a program among those who tried indicates that some students are having difficulty passing the initial set of courses required to get started down a particular program path (e.g., Accounting I for business students or Introduction to Programming for those interested in pursuing information technology).

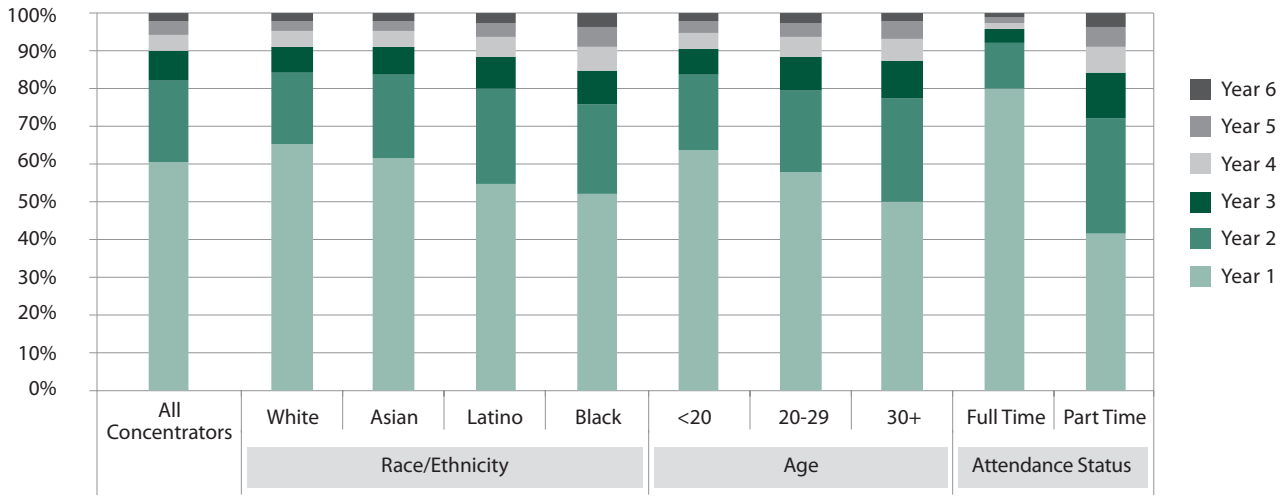
Most students who successfully entered a program ("concentrators") did so relatively early on, with over 60% entering a program within the first year after enrolling in the CCC and more than 80% doing so within two years (Figure 2). Black and Latino concentrators were somewhat more likely than white and Asian concentrators to enter a program later, as were older concentrators. This likely reflects their greater need to enroll in remedial courses and their higher part-time status, as part-time concentrators were substantially more likely than those attending full time to enter a program later. Ninety percent of students age 30 or older enrolled part time compared to just over half of those under age 20.

Figure 1
Share of Students Attempting and Entering a Program of Study within 6 Years



Half of CCC Students Reach the Program Entry Milestone

Figure 2
Initial Entry into a Program by Year, Among Concentrators



Most CCC Students Appear to Focus on the Liberal Arts and Sciences

As shown in Figure 3, 75% of concentrators enrolled in one of the three liberal arts and sciences programs – Arts/Humanities/English, Math/Natural Sciences, and Social/Behavioral Sciences. The other 25% enrolled in one of the programs defined here as career technical education (CTE). The CTE programs with the most concentrators were business, protective services, and education (Figure 4).

There was some variation across student groups in the distribution of concentrators across the liberal arts/sciences and CTE, especially by age. Among concentrators under age 20 at the time they enrolled in the CCC, 83% concentrated in the liberal arts and sciences, compared to 70% among concentrators aged 20-29 and 43% among concentrators age 30 or older. Men were a little more likely to concentrate in CTE than women (27% and 23%, respectively). Asian students were the most likely to concentrate in the liberal arts and sciences (79%) while black students were the most likely to concentrate in CTE (27%), although the differences from the overall distribution were small.

There were larger differences across racial/ethnic groups in the distribution across specific programs than in the distribution across liberal arts/sciences and CTE. Table 1 displays the demographic characteristics of concentrators overall and in each program, revealing which programs had an over- or under-representation of students in each racial/ethnic group. For example, while 29% of all concentrators were Latino, Latinos accounted for 47% of concentrators in Education and 46% of concentrators in both Construction and Engineering/Architecture. Latinos were greatly under-represented in Nursing (17%) and Computers/Information Systems (19%). There were large gender disparities within the CTE programs. Women made up 96% of concentrators in Education and 94% of those in Cosmetology but less than 5% of concentrators in Construction and Mechanics/Repair.

Figure 3
Distribution of Concentrators by Program Area

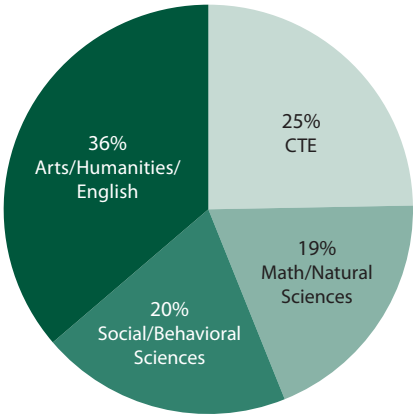
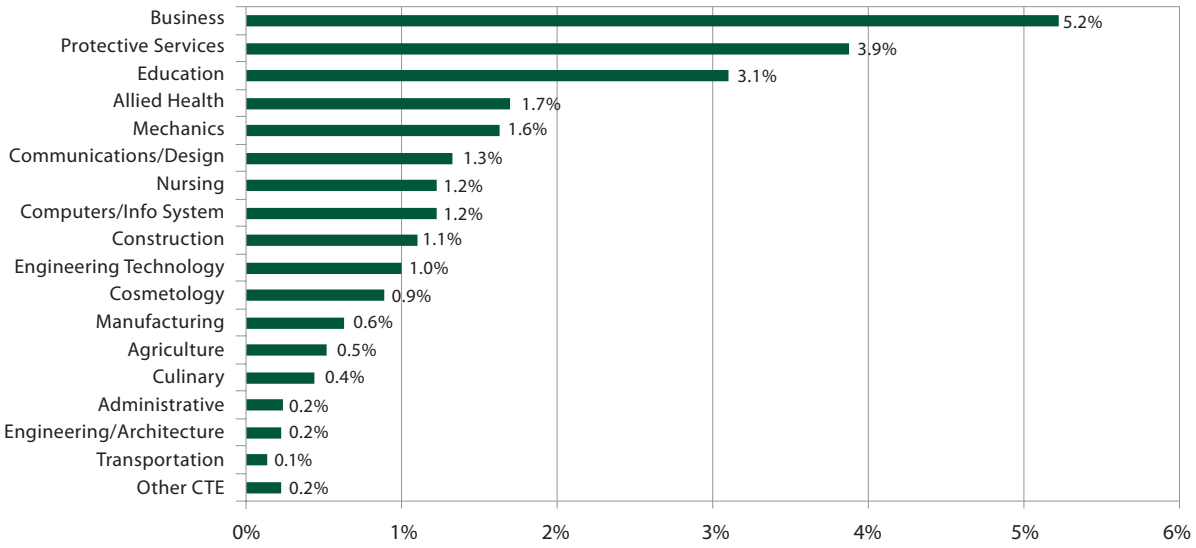


Figure 4
Distribution of CTE Concentrators by Program (25% of Total Concentrators)



Most CCC Students Appear to Focus on the Liberal Arts and Sciences

Table 1
Demographic Characteristics of Concentrators by Program*

Program	Mean Age	Percent Female	Percent White	Percent Asian	Percent Latino	Percent Black
Liberal Arts and Sciences	20.7	56%	43%	22%	28%	7%
Arts/Humanities/English	20.8	57%	45%	19%	29%	7%
Math/Natural Sciences	20.8	55%	39%	30%	25%	5%
Social/Behavioral Sciences	20.3	55%	43%	18%	30%	8%
Career/Technical	25.9	50%	42%	17%	32%	8%
Business	27.2	58%	42%	26%	24%	7%
Protective Services	22.5	26%	46%	7%	39%	7%
Education	27.0	96%	31%	13%	47%	8%
Allied Health	28.6	67%	48%	20%	25%	7%
Mechanics/Repair	23.4	4%	35%	18%	41%	6%
Communications/Design	24.9	42%	48%	17%	27%	7%
Nursing	26.1	82%	40%	36%	17%	6%
Computers/Info Systems	29.1	28%	48%	27%	19%	5%
Construction	28.3	5%	40%	7%	46%	5%
Engineering Technology	23.1	34%	30%	12%	38%	20%
Cosmetology	21.4	94%	45%	10%	32%	12%
Manufacturing	26.8	24%	49%	11%	33%	6%
Agriculture	28.0	47%	73%	5%	20%	2%
Culinary	24.8	50%	39%	20%	27%	13%
Administrative	31.4	81%	46%	14%	32%	8%
Engineering/Architecture	22.3	28%	30%	24%	46%	1%
Transportation	24.0	26%	57%	15%	20%	5%
Other CTE	34.0	74%	46%	8%	26%	19%
All Concentrators	22.0	55%	43%	20%	29%	7%
All Students in Cohort	25.3	52%	42%	18%	31%	9%

* Shaded cells in the age column indicate programs with a mean age more than 2 years above that for all concentrators. Shaded columns in the gender and race/ethnicity columns indicate a share that is more than 5% over (green) or under (gray) the share among all concentrators.

Likely Overstatement of Liberal Arts Majors

Some caution is warranted in taking the large majority (75%) of students found to be concentrating in the liberal arts and sciences as a true measure of students' preference for the liberal arts over CTE. For our purposes, a student's primary program was defined as the one in which he or she had completed the most credits. Many students, especially those entering the CCC straight out of high school, are advised to begin taking general education (GE) courses if they are not sure of their specific goals, and can accumulate credits in the liberal arts and sciences during early exploration. Students planning to transfer, even in disciplines defined here as part of CTE such as Nursing or Engineering/Architecture, would also take many liberal arts and sciences courses to meet GE and lower-division major requirements. For example, those intending to transfer in engineering might complete more credits in math and science while enrolled at the CCC than in engineering, as most engineering coursework would occur after transfer. Among students in the cohort for whom a "major" was ever noted in the CCC's data, more than half named something defined here as CTE, suggesting more interest in those disciplines than our method of assigning students to a primary program would indicate, although as noted earlier the system's data are problematic. As we show later in this report, among those concentrators who earned a certificate or degree from the CCC, a large majority (70% or more, depending on the field) earned it in the field we identify as their primary one, suggesting that the method we used to assign students to a program is a reasonable measure of major in the absence of actual data on students' declared majors.

The Importance of Understanding and Promoting Program Entry

Student Outcomes Vary by Program

Figure 5 shows the highest outcome after six years for all students in the 2004-05 entering cohort, for those who concentrated in either the liberal arts and sciences or CTE, and for those who attempted at least nine credits in a program but did not complete them.[9] About a quarter (23%) of all entering students had either earned a CCC credential (certificate or degree) or had transferred to a university, and another five percent were still enrolled in the last term (spring 2010) having earned at least 30 college credits. Among concentrators in the liberal arts and sciences, 41% had completed a certificate, degree or transfer and another 11% were still enrolled. Completion was slightly lower among CTE concentrators – 36% had earned a certificate or degree or had transferred after six years, and 11% were still enrolled. That 11% of students who have successfully entered programs are still enrolled after six years (without having completed a program) is strong evidence that colleges must do more to create clear pathways for students to follow and ensure sufficient course offerings for those pathways.

Among those who attempted but did not enter a program, a few earned a certificate (probably short-term) and some transferred to a university, but the overall completion rate was only about eight percent. Those who transferred enrolled in an institution outside the California public university systems, as students must complete a 60-credit transfer curriculum in order to enroll in the University of California or California State University.

Student outcomes were similar across the three liberal arts and sciences programs (Figure 6). Concentrators in Math/ Natural Sciences had the highest overall completion rate,

Figure 5
Highest Outcome within 6 Years

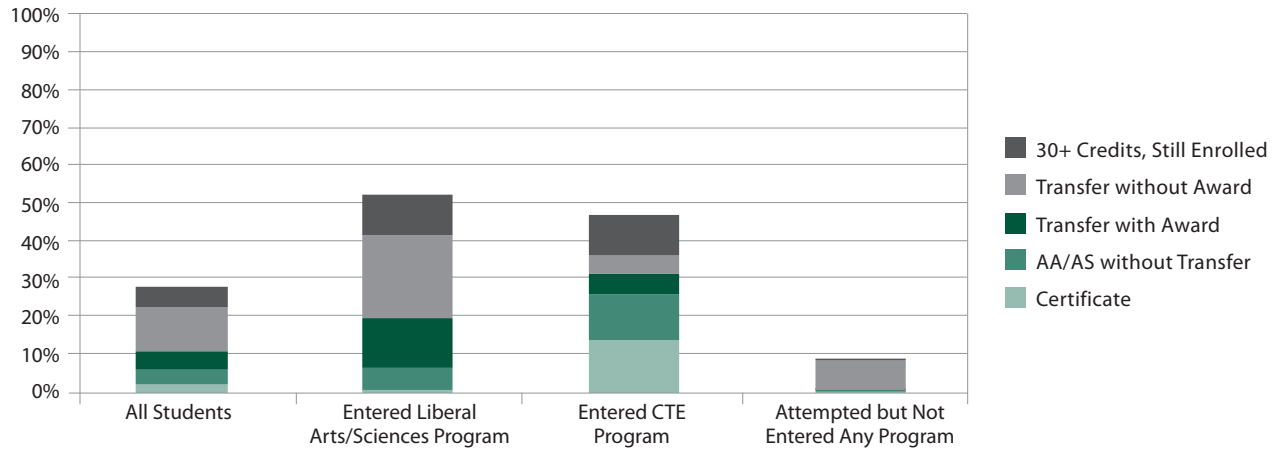
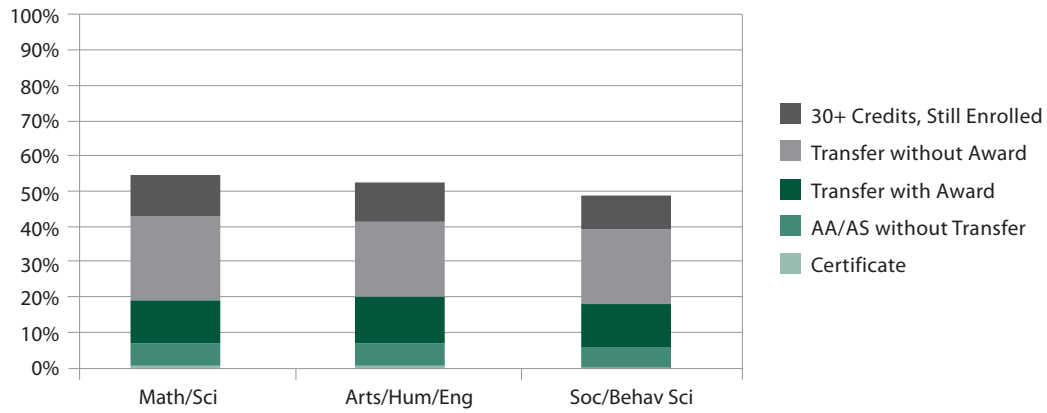
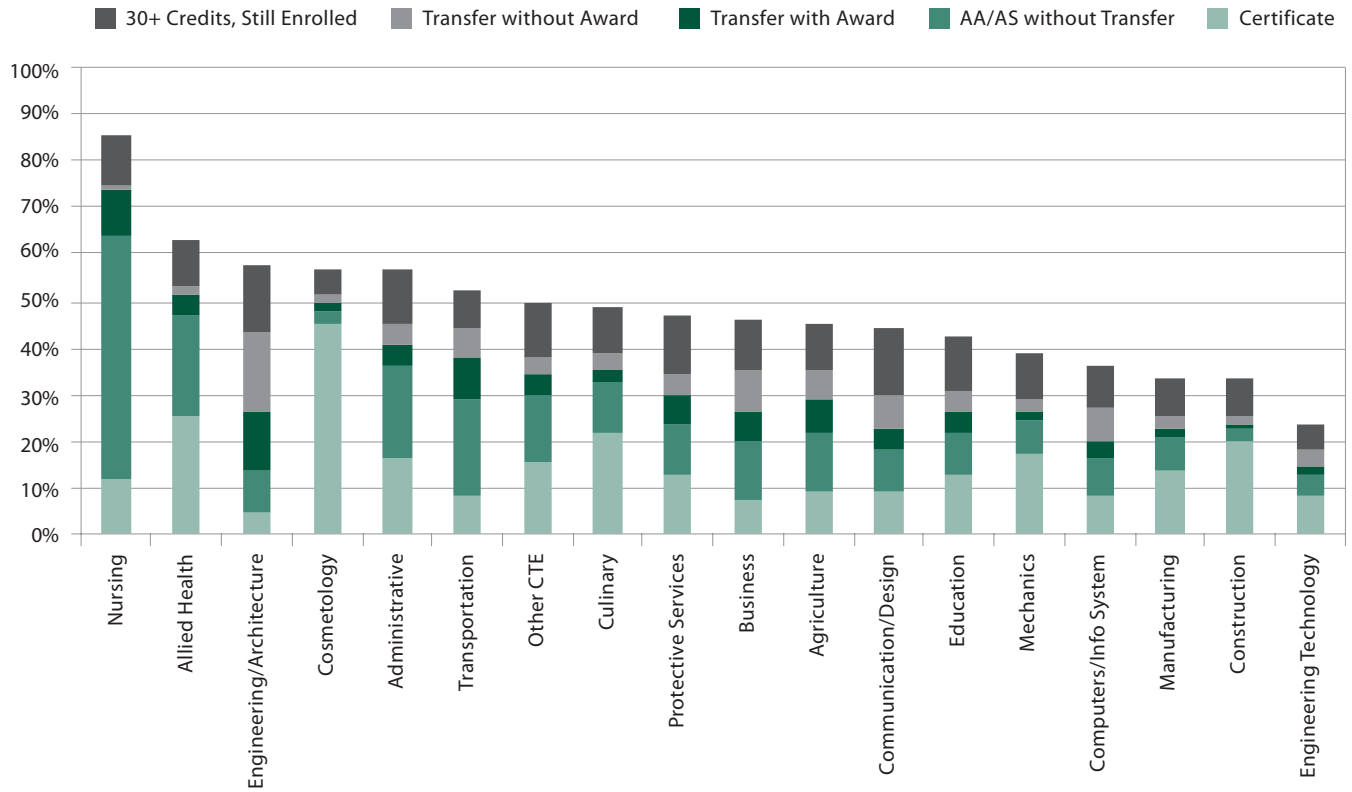


Figure 6
Highest Outcome within 6 Years among Concentrators in Liberal Arts/Sciences



The Importance of Understanding and Promoting Program Entry

Figure 7
Highest Outcome within 6 Years among Concentrators in CTE Programs



with 43% of concentrators earning a certificate or degree or transferring to a university, compared to 41% for Arts/Humanities/English and 39% for Social/Behavioral Sciences. They were also the most likely to be still enrolled with at least 30 college-level credits earned (12%). Most completions in all three liberal arts and sciences programs were transfers to a university (mostly without earning a CCC award); there were almost no certificates earned.

There were more substantial differences in outcomes across the CTE programs, with the highest completion rate, 75%, occurring among concentrators in Nursing (Figure 7). The high completion rate for Nursing is not surprising, given that students must successfully complete many prerequisite courses before they can even apply for admission to vocational and registered nursing programs and enroll in nursing courses. Once admitted, students move through nursing programs as a cohort, advancing through a highly structured curriculum designed around licensing requirements. Other programs with comparatively high completion rates included Allied Health (54%) and Cosmetology (51%). Some of the difference in rates of completion across the CTE programs likely reflect issues other than the effectiveness of the programs at serving students, including licensing requirements for working in related professions (e.g., Allied Health, Cosmetology), the market value of credentials in a particular field, the demand for workers with skills even short of a completed certificate or degree, and the importance of industry certifications compared to college-issued certificates (e.g., Computers/Information Systems).

The types of completion (certificate, degree, transfer) that were most common also varied across the CTE programs, reflecting variation in the labor market requirements for credentials across occupations. For example, more than 80% of students who completed in Cosmetology and Construction programs stopped at a certificate rather than proceeding to an associate degree, while 70% of Nursing completers stopped at an associate degree, and nearly 70% of Engineering/Architecture completers transferred to a university (with or without a CCC credential).

The Importance of Understanding and Promoting Program Entry

Completion Rate Higher among Students Who Enter a Program Early

As shown in Figure 8, outcomes were better among those who entered a program soon after enrolling in the CCC. About half (49%) of students who entered a program within one year of enrolling completed a certificate, degree or transfer. Those who entered a program in the second year were over one-third less likely to have completed anything within six years (32% completion rate), and the rates of completion fell sharply for students entering a program even later. The completion rate of students who entered a program in the first year was nearly twice as high as for students who entered at any later point (Figure 9). The rate of enrolling in a university without having earned any CCC award was fairly similar (8-12%) for students entering a program at any point after the first year.

It is known that the majority of CCC students enter college academically unprepared, although the cohort data do not include information on students' assessment test results or any other indicators of academic preparation level. But using information on the number of developmental (or "basic skills") courses taken, we found that early program entry was associated with a higher completion rate for all students, regardless of the number of developmental courses in which they enrolled (Figure 10). This tells us that assisting students to identify and enter a program of study early on is an important strategy for colleges to undertake not just for college-ready students but also for students who are striving to become college-ready. Accordingly, efforts to improve developmental education might best be undertaken in the context of students' programmatic interests.

Figure 8
Highest Outcome by Year First Entered a Program

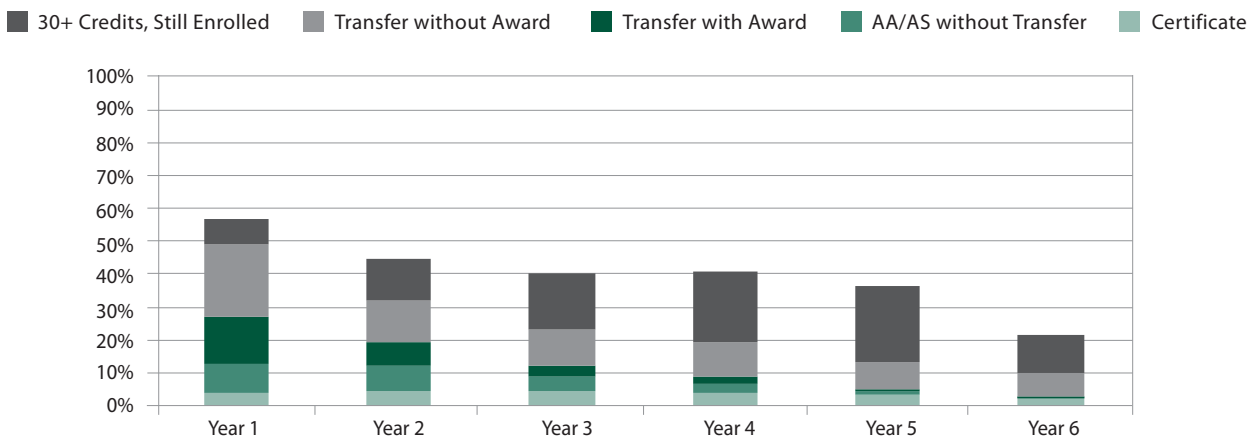
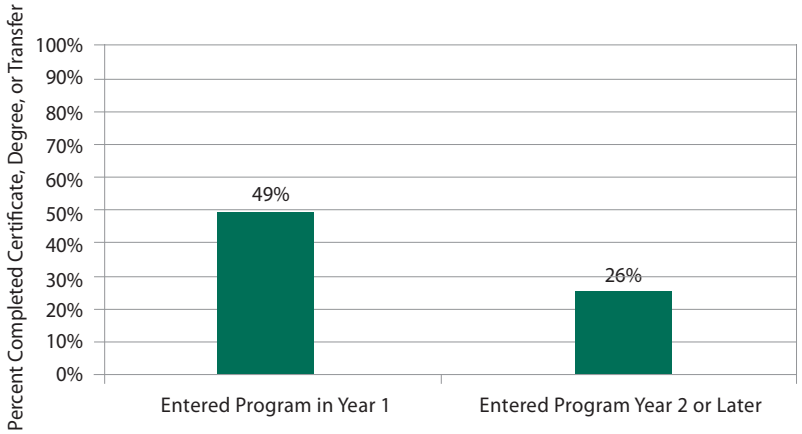
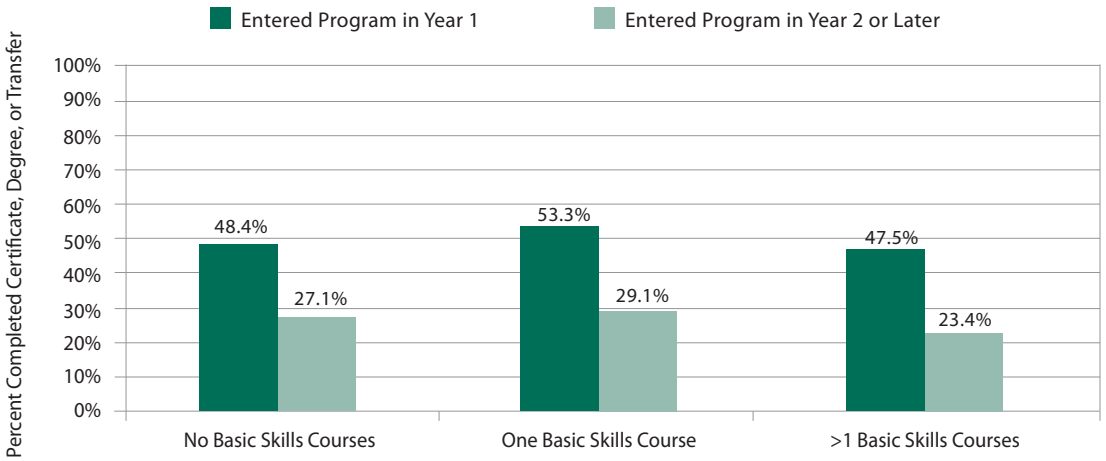


Figure 9
Completion Rate (of Certificate, Degree, or Transfer) Nearly Twice as High among Students Who Entered a Program in Year 1



The Importance of Understanding and Promoting Program Entry

Figure 10
Early Program Entry Associated with Higher Completion Rate, Regardless of Number of Developmental Courses Attempted



The Importance of Understanding and Promoting Program Entry

Most Certificate and Degree Completers Earn an Award in their Primary Program

Table 2 shows the field in which the highest credential was awarded for those concentrators who earned a certificate or degree from the CCC. Most of these students (70% or more) earned their highest credential in the same program they entered, suggesting that the method of assigning students to a primary program based on the field with the highest number of completed credits is reasonably accurate at identifying the program they intend to complete. Many associate degrees are awarded by the CCC in "general studies" or "interdisciplinary studies." For our purposes, these associate degrees were considered to be in-field for concentrators in the three liberal arts and sciences programs. Concentrators in several CTE programs had a significant share of associate degrees awarded in general or interdisciplinary studies, including Nursing, Communications/Design, Business, and Engineering/Architecture, perhaps related to the greater transfer opportunities in those fields compared to other CTE fields.

Table 2
Field of Highest CCC Credential among Concentrators Who Earned a Certificate or Associate Degree

(Primary) Program Entered	Percent with Highest Credential in a Liberal Arts Program	Percent with Highest Credential in a CTE Program	Percent with Highest Credential in the Same Program as that Entered
Liberal Arts and Sciences	86%	14%	–
Arts/Humanities/English	87%	13%	80%
Math/Natural Sciences	84%	16%	79%
Social/Behavioral Sciences	87%	13%	85%
Career/Technical	14%	86%	–
Business	21%	79%	74%
Protective Services	11%	89%	78%
Education	13%	87%	80%
Allied Health	12%	88%	83%
Mechanics/Repair	4%	96%	89%
Communications/Design	22%	78%	70%
Nursing	22%	78%	76%
Computers/Info Systems	14%	86%	74%
Construction	3%	97%	88%
Engineering Technology	5%	95%	71%
Cosmetology	3%	97%	96%
Manufacturing	6%	94%	77%
Agriculture	13%	87%	76%
Culinary	14%	86%	80%
Administrative	12%	88%	87%
Engineering/Architecture	19%	81%	72%
Transportation	11%	89%	84%

Why Do So Many Students Not Enter Programs?

Half (51%) of entering CCC students never achieved concentrator status, as they did not complete at least nine credits within a program area. This is especially disconcerting in view of the broad definition of "program" to include any nine credits in the liberal arts and sciences. Some of these non-concentrators likely never intended to enter a program, as many students enroll in the CCC for the purpose of taking a couple of courses to improve their job skills or for their own personal interest. But some entering students surely intended to enter a program but were unsuccessful. It would be ideal to know which students did and which did not intend to enter a program. Colleges could help credential-seeking students choose, enter, and complete programs and could redirect others to extension or assign them lower priority access to courses and services. We can, however, reach some conclusions about the extent to which students tried, but failed, to enter a program.

Some Students Do Not Seek College Credentials

Course taking patterns provide evidence that some students did not enter programs because they were not seeking credentials. Non-concentrators differed in the distribution of the courses they attempted across program areas (Table 3). Fewer of the course enrollments of non-concentrators were in the liberal arts and sciences, especially Math/Natural Sciences,

Table 3
Distribution of Courses Attempted by Program

	Program Concentrators	Non-Concentrators
Liberal Arts and Sciences	**56.7%**	**34.4%**
Arts/Humanities/English	23.9%	17.8%
Math/Natural Sciences	15.1%	6.9%
Social/Behavioral Sciences	17.7%	9.7%
Career/Technical	**25.4%**	**35.6%**
Business	5.6%	8.2%
Protective Services	2.6%	4.5%
Education	3.8%	3.9%
Allied Health	1.5%	2.0%
Mechanics/Repair	1.1%	1.7%
Communications/Design	1.8%	2.1%
Nursing	0.8%	0.4%
Computers/Information Systems	2.9%	4.4%
Construction	0.9%	1.2%
Engineering Technology	1.0%	3.3%
Cosmetology	0.5%	0.3%
Manufacturing	0.6%	1.1%
Agriculture	0.6%	0.8%
Culinary	0.3%	0.4%
Administrative	0.2%	0.2%
Engineering/Architecture	0.3%	0.3%
Transportation	0.1%	0.1%
Other CTE	0.8%	0.9%
Other Areas	**17.9%**	**30.0%**
Basic Skills (non- ESL)	8.7%	11.4%
English as a Second Language (ESL)	1.0%	5.8%
Physical Education	5.7%	8.8%
Other (e.g., career guidance, tutoring)	2.5%	4.0%
Total	100.0%	100.0%

Why Do So Many Students Not Enter Programs?

and more were in physical education (PE) compared to concentrators. Non-concentrators took a higher share of courses in the CTE program areas and in basic skills and English as a Second Language, a likely reflection of their greater likelihood of enrolling in the CCC to improve job skills or basic skills but perhaps also an indicator that poor preparation was a factor impeding their entry into programs. Non-concentrators also attempted far fewer credits (total and college-level) at the CCC than did students who entered a program (Table 4) - another indication that some of them did not seek a credential.

Many Students Intend but Fail to Enter Programs

While some CCC students are not seeking a college credential, the data indicate that many students enroll seeking to enter a program but fail to do so. Table 4 shows that non-concentrators completed a much lower share of the credits they attempted, meaning they dropped and/or failed courses at a much higher rate than did students who successfully entered a program. This suggests that some non-concentrators enrolled with an interest in entering a program but encountered challenges in doing so that they were not able to overcome.

The initial goal students check on the application form can be an unreliable indicator of their specific intent, but it may indicate something about whether students enrolled in the CCC with any intention of entering a program of study and pursuing some kind of completion outcome.[10] Table 5 shows the initial goal indicated by concentrators and non-concentrators. Among non-concentrators, 32% had indicated a goal of completion when they initially enrolled and 40% indicated a non-completion goal. This suggests that, while many non-concentrators likely never intended to enter or complete a program, a substantial share of them did. Looked at another way, 62% of students who indicated a completion goal when they initially enrolled actually entered a program which, while much higher than the overall rate of entering a program (49%),

Table 4
Credits Attempted and Completed

	Program Concentrators	Non-Concentrators
Average Total Credits (includes basic skills)		
Attempted	70.8	13.1
Completed	52.6	5.7
Credit Completion Rate	74.3%	43.5%
Average College-Level Credits		
Attempted	66.2	10.0
Completed	49.3	4.1
Credit Completion Rate	74.5%	41.0%

Table 5
Stated Goal at Entry

Stated Goal at Entry	Program Concentrators		Non-Concentrators		Total Cohort	
	Number	**Percent**	**Number**	**Percent**	**Number**	**Program Entry Rate**
Completion *(certificate, degree, transfer)*	115,444	55%	72,228	32%	187,672	62%
Non-Completion *(discovery, educational development, job skills, basic skills)*	41,251	19%	88,465	40%	129,716	32%
Undecided or No Goal Indicated	54,362	26%	62,408	28%	116,770	47%
Total	211,057	100%	223,101	100%	434,158	49%

Why Do So Many Students Not Enter Programs?

still means that more than a third of students who had indicated an interest in completing a college credential at the time they enrolled failed to reach the milestone of entering a program.

Many CCC students face obstacles related to their lack of academic preparation, and become discouraged by the long road through developmental coursework required for completion of a degree or transfer. Mirroring national trends, efforts are underway in the CCC to improve processes for assessing students' basic skills in math and English and placing students in appropriate courses, and to develop innovative solutions for providing effective developmental education to those who are not yet ready for college-level coursework.

Many certificate programs can be entered and completed without basic skills coursework, as they do not have math or English requirements, but many entering students may not be aware of these options. With better guidance from the colleges, more students could find their way into and through certificate programs, but advising is hampered by limited resources and a lack of familiarity among academic advisors with CTE options. Efforts to increase the number of students completing certificate programs should focus on ensuring that graduates acquire adequate math and English skills in those programs, an effort going on nationally through "contextualized" developmental education coursework that incorporates these basic skills into content courses in certificate programs.

Taken together, the patterns of non-concentrators suggest that a substantial number of them likely enrolled in the CCC with some intent to pursue a college credential but dropped out before making enough progress to enter a program. One third of non-concentrators listed a goal of completing some kind of college certificate or degree on their initial application, and a quarter of them actually attempted to enter a program (i.e., attempted 9 credits in a program area). Given the large numbers of under-prepared, low income, first generation college students that enroll in the CCC, many likely drop out before entering a program for a wide variety of academic and personal reasons, or because they found too little support at the colleges to help them find their way into a coherent program of study.

Conclusions and Recommendations

The analyses in this report point to three primary conclusions:

1. Entering a program of study is a critical milestone on the path to completing a college certificate or degree that only half of all entering CCC students reach.

There are likely many reasons that half of students don't reach this milestone, including that some students never intended to, as they enrolled only to take a course (or a few) to upgrade their skills or pursue a personal interest. But our analysis indicates that a significant number of those who did not enter a program had enrolled in the CCC with some intent to pursue a college credential. A third of them had indicated so on their initial enrollment forms, and about a quarter of them actually attempted to enter a program. Some of these students likely dropped out for a variety of personal and financial reasons that are not easily remedied by the colleges. But many others who were academically under-prepared (as are the majority of all CCC students) likely found themselves stuck in developmental course sequences. Others failed to receive the necessary guidance to understand the many program options – particularly CTE programs - and find their way into a program of study.

The upside from helping students enroll in programs of study is potentially huge. Our analysis showed that 50,000 students in one entering cohort alone attempted but failed to enter a program of study and student goal statements suggest that at *least* another 25,000 intended, but failed, to enter a program of study. This suggests that there are hundreds of thousands of students, across multiple entering cohorts, who hope but fail to take this important step to program completion.

2. The earlier students enter a program, the more likely they are to complete a certificate, degree or transfer.

Our analysis showed that students who entered a program in the first year were nearly twice as likely to complete a program within six years as students who entered a program later. While this finding does not prove that early program entry *causes* students to complete, the results are compelling enough to conclude that colleges should focus on helping incoming students understand the options available to them and enter a program of study fairly quickly. Community colleges offer a wide array of programs, from short-term certificates to degrees requiring several years to complete, across a large number of fields and disciplines. But they typically offer little guidance to incoming students in choosing from among what can be an overwhelming number of options. The colleges generally do not organize their instructional offerings around a set of coherent programs with a sequence of classes that students can clearly access as they progress through a clear set of requirements. In most cases, students do not declare majors and colleges do not track student progress within programs. College processes are not focused on program entry and completion, despite the fact that program entry is a necessary step on the path to a college credential.

3. Analyzing students' course-taking patterns provides reliable information for determining their intended programs, but better data are needed for effective student guidance and program review.

Observing the field in which a student completed the highest number of college-level credits appears to provide good information about his or her intended program of study, although doing so may overstate the interest of students in the liberal arts and sciences. As it involves looking, after the fact, at a student's entire record of CCC attendance over six years, it is most useful for examining overall patterns of student progress in order to make institution-wide changes to better serve future students. This approach is of little value in providing individual students with guidance on choosing and entering a program of study. To best help incoming and current students, the colleges should collect and maintain better information from students on why they are enrolling, help students refine their goals over time, and track their progress toward their goals. Accurate data on the intended program of study for all credential-seeking students would be an invaluable tool for reviewing program effectiveness. With the current state of data, program review efforts cannot typically include an evaluation of program completion rates and employment outcomes because colleges do not track enrollments by program.

Recommendations

Specific steps the colleges could take to increase the numbers of students who successfully enter programs of study in their first year include:

- Help incoming students learn about and choose programs of study through orientation or a required first-term course that covers program options as well as more general college success skills

Conclusion and Recommendations

- Ensure that certificate and degree programs are well structured and provide roadmaps of required or strongly recommended course sequences for each program of study so that students know what courses they should take in their first year of pursuing a program
- Develop class schedules to ensure availability of courses based on students' declared programs
- Ensure that certificate and degree programs are well structured for part-time students, given that they make up a substantial majority of entering students (even as efforts are made to increase the proportion of students who attend full-time)
- Provide better professional development opportunities for academic advising staff, to ensure they can provide guidance for students on the full range of program options at the colleges
- Accelerate reforms to basic skills instruction with special attention to contextualized instruction that integrates developmental math and English skills into content courses
- Require students to declare a major program of study after a certain amount of time or accumulation of credits, and assign students faculty advisors in their declared major programs
- Improve coordination between high school and community college programs to ensure that all articulated courses offered in the high schools are part of structured certificate or degree programs and to provide high school students more opportunities to learn about college program offerings
- Keep up-to-date records of each student's major program of study so that students can be appropriately advised as to the courses they need.

The national focus on increasing college completion has taken hold in the CCC, and that commitment must be matched by bold actions toward reforming state and system policies and campus practices. Sharing "best practices" and attempting to scale up small student support programs will not affect enough students to move the needle sufficiently on completion. Re-conceptualizing the access mission as providing access to well-defined and structured programs, and reforming college processes to assist students in choosing, entering, and completing those programs, will go far toward addressing the needs of students for college credentials of value and the needs of California for a well-educated workforce and citizenry.

Endnotes

1 Offenstein, J. & Shulock, N. (2010). *Taking the next step: The promise of intermediate measures for meeting postsecondary completion goals*. Boston, MA: Jobs for the Future; Leinbach, D.T. & Jenkins, D. (2008). *Using longitudinal data to increase community college student success: A guide to measuring milestone and momentum point attainment*. New York: Columbia University, Teachers College, Community College Research Center.

2 Jenkins, D. (2011). *Get with the program: Accelerating community college students' entry into and completion of programs of study*. New York: Columbia University, Teachers College, Community College Research Center.

3 Scott-Clayton, J. (2011). *The shapeless river: Does a lack of structure inhibit students' progress at community colleges?* New York: Columbia University, Teachers College, Community College Research Center.

4 Nitecki, E. M. (2011). The power of the program: How the academic program can improve community college student success. *Community College Review*, 39(2), 98-120.

5 Bailey, T., Jenkins, D. & Leinbach, T. (2006). *Is student success labeled institutional failure? Student goals and graduation rates in the accountability debate at community colleges*. New York: Columbia University, Teachers College, Community College Research Center.

6 Jenkins, 2011

7 Excluding entering students who already possessed an associate or bachelor's degree from the analyses did not make any substantial difference in the findings – when those students were excluded, 63% of entering students attempted to enter a program and 51% actually did. Given the minimal impact on the results, and the understanding that many people with degrees enroll in the CCC to re-train for a career change, we present the findings for the total cohort.

8 This report combines all persons of Asian and Pacific Islander descent into one category.

9 Note that we define "Transfer with no Award" as a higher outcome than "Certificate" and "Associate Degree" despite the fact that some students who enroll in a university after attending the CCC do so after having accumulated fewer credits than do students who complete a CCC certificate or associate degree. This order makes it easier to see the portion of students who earn a credential at a community college.

10 For example, in an analysis of the 2003-04 entering cohort of CCC students (not published in any report), we found a completion rate of 34% among those who indicated a completion goal (certificate, degree or transfer) compared to a completion rate of 18% among those who indicated a non-completion goal when they first enrolled.

INSTITUTE FOR HIGHER EDUCATION
LEADERSHIP & POLICY

IHELP thanks the following sponsor for its support of this research and report.

THE WILLIAM AND FLORA
HEWLETT
FOUNDATION

The Institute for Higher Education Leadership & Policy seeks to enhance leadership and policy for higher education in California and the nation by producing research and services for policymakers, practitioners, and educators.

CALIFORNIA STATE UNIVERSITY
SACRAMENTO
Institute for Higher Education Leadership & Policy

6000 J Street, Tahoe Hall 3063 | Sacramento, CA 95819-6081
T (916) 278-3888 | F (916) 278-3907 | *www.csus.edu/ihelp*